DOCUMENT RESUME

ED 349 734 EC 301 479

AUTHOR Harnisch, Delwyn L.; And Others
TITLE Seven Behavioral Domains of Independent Living.
PUB DATE 92
NOTE 23p.; In: Harnisch, Delwyn L., And Others. Selected Readings in Transition; see EC 301 473.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Advocacy; *Behavior Rating Scales; Community Services; *Definitions; *Disabilities; Employment; High Schools; *Independent Living; Leisure Time; Needs Assessment; Recreational Activities; Rural Education; *Rural Urban Differences; *Rural Youth; Self Care Skills; Social Integration; Transportation
IDENTIFIERS High School and Beyond (NCES)

ABSTRACT

This study analyzes the components of a proposed definition of independent living, in order to derive scales to be used to differentiate between groups with specific disabilities and between those with and without disabilities. The study was designed to facilitate identification of those areas of special needs that can be best addressed within the education framework. Subjects were the 14,553 students drawn from the 1980 sophomore cohort of American high school students surveyed by the "High School and Beyond" national longitudinal survey, of whom 3,758 were identified as having a disability. The students were surveyed in the base year and the two subsequent biennial follow-ups. Items were selected from the three survey questionnaires and classified by expert judges into one of seven independent living domains (self-care and advocacy; accommodation and living arrangements; employment, education, and training; transportation and mobility; generic community services; recreation and leisure activities; and community interaction) or "other" or "not applicable" categories. Scales derived from factor analysis of the questionnaire items were used to assess several group differences. Results showed that youth with disabilities were below average on many aspects of life that they need to master to be able to lead productive and independent adult lives. Their aspirations for the future also were much lower. Rural youth lagged behind their city counterparts in a number of areas, such as computer skills, postsecondary education expectations, and participation in special education programs. Rural youth with disabilities scored above their city counterparts in family and affiliation areas. (Contains 11 references.) (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED349734

Chapter 6

Seven Behavioral Domains of Independent Living

Delwyn L. Harnisch

Adrian T. Fisher

and

Chuck Carroll

RUNNING HEAD: Behavioral Domains

EC 301479

BEST COPY AVAILABLE

Seven Behavioral Domains of Independent Living

The impact of disabilities on one's ability to live an autonomous life is affected by many environmental and demographic factors. For example, Clowers and Belcher (1979) maintained that physical or mental disability interacts with factors in the external environment to increase the severity of the disability. Such factors may include lack of public transportation (Bikson & Bikson, 1981), or availability of suitable employment (Hasazi, Gordon, & Roe, 1985) or housing (Lessard, 1982). Each of these may act to restrict the independent living of those with disabilities, especially within rural settings.

The literature on independent living contains various definitions and conceptualizations. Unfortunately, many of them do not facilitate an understanding of the skills and factors necessary to live independently. Too often, autonomy and life control for the person with a disability are not addressed. Indeed, the goal of much of what is called independent living refers more to developing skills within the individual with disabilities to relieve the caregiving burden on others, rather than promoting a life free of constraints imposed by others. Much of the conceptualization of independent living comes from the research on persons with mental retardation, which focuses on such aspects as personal hygiene, self-care, or functional mathematics (e.g., Rusch, Chadsey-Rusch, White, & Gifford, 1985).

In a recent literature review on independent living, Harnisch, Fisher, Kacmarek, and DeStefano (1987) found that more than one-half of the articles reported on studies involving samples of persons with mental retardation. The definitions used did not aid an understanding of the mechanisms that underlie successful transition to independence, nor the constraints faced by those with disabilities in trying to make this transition.

To formulate a better understanding of independent living, a definition has been derived that identifies various critical domains in which a person must demonstrate skills, or is likely to face challenges from the external environment. These domains include:

(a) self-care and advocacy; (b) accommodation and living arrangements; (c) employment, education, and training; (d) transportation and mobility; (e) generic community services; (f) recreation and leisure activities; and (g) community interaction (Harnisch, Chaplin, Fisher, & Tu, 1986).

In developing this definition, Harnisch et al. (1986) were striving for a broader conceptualization that could be applied differently depending upon the disabling condition, or the external factors that impinge upon the life of the person with disabilities. Such a definition can facilitate the growth programs and the modification of curricula to enhance the development of full autonomy and control of their own lives for those with disabilities.

In this study, we have analyzed the components of the proposed definition in order to derive scales to be used to differentiate between groups with specific disabilities and between those with and without disabilities. This, in turn, facilitates identification of those areas of special needs that can be best addressed within the education framework. Thus, we wish to assist in overcoming the most pressing difficulties that restrict the growth of true independence for those who have disabilities.

Method

Subjects

The subjects were the 14,553 students drawn from the 1980 sophomore cohort of American high school students, who were surveyed by for the High School and Beyond (HSB) National Longitudinal Survey (Office of Educational Research and Improvement, 1986). Of these, 7,185 were males and 7,368 females. In addition, 3,758 identified themselves as having one of the following disabilities: learning disabilities, hearing orthopedic, speech, or other health impairments. The students were surveyed in the base year and the two subsequent biennial follow-ups.

Procedure

Items were selected from the three survey questionnaires and distributed to 12 experts in independent living, special education, and rehabilitation. These judges suggested to which of the seven independent-living domains each item belonged. If it belonged to a domain that was not represented in the definition, it was assigned to "Other"; if it did not measure independent living at all, it was placed in the "Not Applicable" category. Items that contained more than one component variable were assigned to more than one category.

To be assigned to an independent-living domain, an item had to receive a majority of the judges' votes. Items that were assigned to the "Not Applicable" category or that failed to receive a majority assignment to a particular category were dropped from further analysis. Items containing more than one component variable were evaluated individually and each variable was assigned to its appropriate independent-living domain.

Analyses

The items retained were factor analyzed within their independent-living domains to derive scales that could be used to assess group differences. Oblique rotations using the promax method were employed to derive the factor loading patterns. As few items were assigned to the transportation, mobility, and generic services domains, these domains were excluded from the analyses.

The derived scales were used to assess several group differences. Specifically, comparisons were conducted between: those with disabilities and their nondisabled peers; the five specific disabling conditions groups--learning disabilities (LD), hearing impairments (HI), speech impairments (SI), orthopedic impairments (OI), and other health impairments (OH); and rural and nonrural youth with disabilities.

Results

Demographics

Table 1 presents the distribution of youth with disabilities and those without by ethnicity and type of community in which they lived. In the cities, Hispanic (28%) and Black (20%) youth were more represented than in the rural areas, with 22% of Hispanics and only 8% Blacks in the latter. Conversely a much higher percentage of white youth with disabilities was found in the rural areas (65%) than in the cities (49%). Thus, the ethnic composition of students with disabilities in these two locations differed greatly.

The results of another comparison between the disabled populations in rural and nonrural schools are provided in Table 2, that is, a breakdown of disabling conditions by ethnicity and type of community. As shown, in rural areas, Hispanics represented 40.7% of those with learning disabilities, compared to 29.8% in the cities. Similar differences occurred with speech (44.3% vs. 36%) and orthopedic (34.8% vs. 25%) impairments. Blacks were more represented in the city schools for all disabling conditions.

The largest disabling condition reported in both areas was other health impairments—chronic or acute health problems that limit vitality or alertness, such as tuberculosis, sickle cell anemia, or diabetes (Burgdorf, 1980). Of the sample of 3,008 students with valid ethnicity, urbanicity, and disabling condition data, 1,280 (42.6%) reported having "other health impairments."

Factor Analyses

The items assigned to independent-living domains by the expert judges were factor analyzed within their respective domains to develop scales to assess those aspects of independent living. An iterative principal-factor solution was obtained using squared multiple correlations as initial commonality estimates and an oblique rotation using the promax method.

Items with a factor loading above .30 were included. If an item loaded above .30 on more than one factor, it was assigned to the factor of highest loading. Items that were

theoretically consistent with the bulk of the items in a scale were retained. Table 3 presents the independent-living domains and a brief explanation of the factors in each.

Once the factor analyses were completed, the factors were transformed to facilitate their use as scales for assessing independent living across the range of domains. This was done by standardizing the factors so that each had a mean value of 50 and standard deviation of 10 for the population. The Spearman-Brown prophecy formula was used to estimate the reliability of each standardized scale (based on a common scale length of 40 items). The resulting reliability estimates ranged from .89 to .99, with a median of .95. (For a detailed description of the reliability calculations for each scale, see Harnisch et al., Digest on Youth in Transition, Vol. 2.)

Rural Versus Nonrural Youth with Disabilities

The rural and nonrural youth were compared on each of the derived independent living scales using a t-test. The results of these analyses are shown in Table 4 ("D" is the difference between group means; positive values favor city students, negative favor rural students). As illustrated in Table 4, rural youth lagged behind their city counterparts in a number of areas, while leading in church participation, work experience, extracurricular clubs and sports, household composition, and tax exemption status.

In the domain of self-advocacy and skills, the rural youth with disabilities were trailing their city peers in the areas of computer skills ($t = 2.73$, $p < .01$) and the ability to find and use information ($t = 5.14$, $p < .001$). Deficiency in these areas could severely limit the future employment and educational opportunities of these rural youth (especially since the city youth were already below the population mean on these scales).

In the education, training, and employment domain rural youth demonstrated significantly more work experience than their city peers ($t = -5.22$, $p < .001$). This may be a result of them leaving school at earlier ages. However, they trailed in the areas of career expectations ($t = 7.09$, $p < .001$), and post-secondary education expectations ($t = 3.68$, $p < .001$). These findings relate to the adult milestones scale showing that country youth expect to

achieve adult milestones at significantly younger ages than do city youth with disabilities ($t = 5.15$, $p < .001$). However, achieving such milestones too early can lead to a lack of future opportunities by denying access to the education and training received by those who delay the milestones.

In their awareness of, or participation in, special education programs rural youth with disabilities were found to be at another disadvantage compared to their city counterparts ($t = 2.36$, $p < .05$). This finding raises questions regarding the availability of these programs to rural youth.

Rural youth with disabilities were at an advantage in several areas. Specifically, they were significantly more involved in extracurricular clubs ($t = -2.39$, $p < .05$) and extracurricular sports ($t = -1.93$, $p < .05$) . This may be indicative of a more accepting attitude in smaller towns and localities. Additionally, they were more likely to live with their families ($t = -4.58$, $p < .001$), but less likely to be a tax exemption for their parents ($t = -2.57$, $p < .01$), possibly indicating that they were engaged in full-time employment but still living at home.

In order to understand the differences between the rural and city youth with disabilities based on these scales of independent living, a discriminant-function analysis was conducted. Ten groups were constructed, representing subjects' urbanicity by specific disabling condition (e.g., rural learning disabilities, city hearing impairments). The 19 independent living scales were used as predictor variables.

The results of the significant discriminant analysis showed that two functions in the data accounted for approximately 70% of the variance. A third accounted for slightly less than 8% more. (The standardized canonical coefficients for these two functions are shown in Table 4.) Examining the two significant-function values shows that the first independent living function was represented by high weights on the career expectations, resource utilization, and computer skills scales. These scales have been shown to differentiate

between rural and nonrural youth with disabilities. This first function seems to reflect an Achievement Orientation.

The second independent-living function was characterized by involvement in extracurricular clubs and the work experience. Additional independent-living domains represented in this function included: household composition, tax exemptions, and church participation. The second function describes an Affiliation Dimension of independent living.

The centroids from the canonical correlations are plotted for the 10 groups in Figure 1. On the Achievement Orientation function, both city orthopedic and other health impairments groups (4 and 5) were found to have high scores, while the rural learning disabilities (6), hearing impairment (7), and speech impairment (8) groups had quite low scores. This function basically discriminates between city orthopedic and health impairment groups and the other disabling conditions in the rural settings, demonstrating that the achievement orientation was more evident in the city orthopedic and health impaired groups than in any of the rural groups.

The affiliation function was characterized by the high scores of the rural orthopedic impairments group (9) and the low scores of the city learning disabilities (l) and speech impairment (3) groups. Three other groups—the rural health (O) and speech (7) impairment groups, and the city health impairment groups—had moderately positive scores.

The class mean values for each of the scales are shown in Table 5. These values should be read as their deviations from the population mean of 50 and standard deviation of 10. As shown, the youth with disabilities in both areas differed substantially from the population means on several scales. For example, on the extracurricular clubs scale the rural orthopedic impairment group scored 55.06, one-half standard deviation above the population mean. In addition, the rural youth with disabilities often scored much lower than their city peers (e.g., on career expectations the city learning disabilities group scored

45.37—almost one-half a standard deviation below the mean—while the rural learning disabilities group scored 42.56).

An examination of the means in Table 5 reveals patterns of differences between the rural and nonrural youth with specific disabilities. The values for resource utilization show that city learning disabled (46.74) and speech disabled (47.81) students were low compared to the population mean (50); in the rural schools, the same type of students scored much below the city students (LD—44.64, SI—45.62). Similar clear differences emerged in the career expectation factor, with most city groups being much below the population mean, and the rural students much below the city groups (rural: LD—42.56, HI—44.89, SI—44.03).

In other areas, the values for the rural youth exceeded those of the city groups. For example, in church participation, they scored at, or above, the population mean, while most of the city groups were below. The same pattern emerged for the tax exemption and household composition scales. That is, the rural youth tended to live away from their families more, but were more likely to be listed as tax exemptions. This finding may indicate a need in order to have access to special education or rehabilitation resources.

Special education programming is addressed in the awareness of special education programs scale. Here, all city groups reported scores above the population mean, while three of the rural groups were below. This may indicate that the program needs of certain student groups in the rural areas are not being met. This may be reflected on the adult milestones scale where the city youth expect to achieve these milestones at younger ages than the average (e.g., LD—48.12, HI—47.37), and rural youth even younger (LD—44.48, HI—46.70, SI—45.76). While this can be regarded as a sign of early independence, taking on such adult responsibilities too early can deprive a person of many of the advantages of further education and training.

Two groups with disabilities showed dissimilar patterns compared to their peers. This was especially true for those with orthopedic impairments, but also for those with other

health impairments. As shown in Figure 1, students with orthopedic impairments (4 and 9) formed their own outlier group, scoring consistently above average on the two independent-living discriminant functions.

Discussion

Overall, the results showed that youth with disabilities were below average on many aspects of life that they need to master to be able to lead productive and independent adult lives. Thus, many of the scales indicated that they were not able to achieve to the same level as their nondisabled peers, which places them in jeopardy for their later attempts at success.

Not only were the youth with disabilities not achieving at as high a level as their nondisabled peers, their aspirations for the future also were much lower. This is consistent with the findings of Fisher and Harnisch (1987) who noted that students with disabilities expressed lower career expectations. Further, these perceptions were supported by the lower expectations of their parents, teachers, and significant others. Such lowered expectations lead to limitations rather than possibilities for future life success.

More important than these generalized findings are the specific differences found by disabling condition within the two locations: rural and urban. The independent-living scales identified differing strengths and needs for each condition. Based on such data, curricula can be rethought in an attempt to promote independent growth within realms that are lacking, while building on existing strengths. This might entail redirecting resources into newer programs that serve identified needs, rather than more general goals. This is particularly important when considering the uneven distribution of disabling conditions between locations.

The results on the distribution of disabling conditions between locations allow further consideration of the make-up of the groups with these handicaps and the best ways to serve them. For example, according to the demographic data, in rural schools large proportions of those with learning disabilities (40.7%) and speech impairments (44.3%) are Hispanics.

However, many schools that do not have funds for limited-English students include them in the special education classes, thereby serving neither the limited-English nor the disabled students adequately (Bernal, 1983).

Summary

The proposed definition of independent living and the subsequent development of independent living scales are based on notions of the importance of autonomy, personal control, and empowerment of the individual with disabilities. The scales can be used to identify both strengths and weaknesses within specific disabling conditions as well as within certain demographic groups who may be a part of the special education population.

In particular, the independent living proved to be a useful way to identify the differences between rural and city youth with disabilities. Thus, the t-tests and discriminant functions showed that rural youth with disabilities scored above their city counterparts in family and affiliation areas. However, in several other domains, the rural youth with disabilities trailed the city counterparts as well as the general population. One particularly interesting finding was the extremely positive adaptation of the rural students with orthopedic impairments, who scored well above the population mean on many scales.

By use of the definition, we have tried to highlight the different domains in which a person must demonstrate skills in order to live independently. The scales have further refined the definition, thereby allowing research and evaluation activities to assess the needs of the population of a school district, the curriculum, and the allocation of funds to special programs. Thus, use of independent living scales could serve several educational purposes and provide the basis for policy formulation and review.

References

Bernal, E. M. (1983). Trends in bilingual special education. Learning Disability Quarterly, 6, 424-431.

Bikson, T. A., & Bikson, T. K. (1981). Functional problems of the visually impaired. Santa Monica, CA: The Rand Corp.

Burgdorf, R., Jr. (Ed.). (1980). The legal rights of handicapped persons: Cases, materials and text. Baltimore, MD: Paul H. Brookes, Pub.

Clowers, M. R., & Belcher, 5. A. (1979). A service delivery model for the severely disabled individual: Severity and closure criteria. Rehabilitation Counseling Bulletin, 23, 8-14.

Fisher, A. T., & Harnisch, D. L. (1987). Career aspiration models of adolescents and young adults: A comparison of handicapped and nonhandicapped students. Paper presented at the American Educational Research Association annual conference, Washington, DC.

Harnisch, D. L., Chaplin, C. C., Fisher, A. T., & Tu, J. J. (1986). Transition literature review on educational, employment and independent living outcomes. Champaign: University of Illinois, The Transition Institute.

Harnisch, D. L., Fisher, A. T., Kacmarek, P. A., & DeStefano. L., (1987). Transition literature review: Educational, employment and independent living outcomes, Vol. 2. Champaign: University of Illinois, The Transition Institute.

Hasazi, S. B., Gordon, L. R., & Roe, C. A. (1985). Factors associated with employment status of handicapped youth exiting high school from 1979-1983. Exceptional Children, 51, 455-469.

Lessard, K. J. (1982). Developing community housing services for the blind and deaf-blind students who have completed training programs: What is our responsibility? Vancouver, British Columbia, Canada: Association for Education for the Visually Handicapped. (ERIC Reproduction Service No. ED 240 793)

Office of Educational Research and Improvement, U.S. Department of Education, Center for Statistics. (1986, April). High school and beyond 1980 sophomore cohort second follow-up (1984) data file user's manual. Washington, DC: National Center for Educational Statistics.

Rusch, F. R., Chadsey-Rusch, J., White, D. M., & Gifford, J. (1985). Programs for severely mentally retarded adults: Perspectives and methodologies. In D. Birker & J. Filles (Eds.), Severe mental retardation: From theory to practice (pp. 119-140). Reston, VA: Council for Exceptional Children, Division of Mental Retardation.

Table 1

Number and Percentage of Handicapped (H/C) and Nonhandicapped (N-H/C) Students by Ethnicity and Community Type (N = 14,447)

		Hispanic		American Indian		Asian		Black		White		Total
		n	%	n	%	n	%	n	%	n	%	
City	H/C	573	28	44	2	28	1	407	20	1001	49	2053
	N-H/C	1913	22	122	1	362	4	1319	15	4979	57	8695
Rural	H/C	177	22	29	4	5	1	68	8	512	65	791
	N-H/C	529	18	92	3	26	1	206	7	2055	71	2908

U.S. Department of Education (1984). High school and beyond. Washington, DC: National Center on Education Statistics.

Table 2

Frequency of Handicapping Conditions by Ethnicity and Community Type (N = 3008)

		Hispanic		American Indian		Asian		Black		White		Total
		n	%	n	%	n	%	n	%	n	%	
LD	City	118	29.8	10	2.5	21	5.3	68	17.2	179	45.2	396
	Rural	63	40.7	14	9.0	3	1.9	9	5.8	66	42.6	155
HI	City	121	33.7	11	3.1	9	2.5	47	13.1	171	47.6	359
	Rural	56	35.9	13	8.3	5	3.2	10	6.4	72	46.2	156
SI	City	99	36.0	9	3.3	15	5.5	54	19.6	98	35.6	275
	Rural	47	44.3	3	2.8	3	2.8	5	4.7	48	45.3	106
OI	City	48	25.0	1	0.5	1	1.6	23	12.0	117	60.9	192
	Rural	31	34.8	1	1.1	4	4.5	2	2.3	51	57.3	89
OH	City	228	24.4	21	2.3	29	3.1	184	19.7	473	50.6	935
	Rural	90	26.1	7	2.0	2	0.6	43	12.5	203	58.8	345

U.S. Department of Education (1984). High school and beyond. Washington, DC: National Center on Education Statistics.

Table 3

Independent-Living Domains and Factors

Self-Advocacy and Maintenance Skills

Factor I, Computer Skills. A high score is associated with experience with computer hardware and software.

Factor II, Resource Utilization. Questions assess skills necessary for gathering and using information, applying for jobs, college admission, etc.

Factor III, Technological Skills. A high score indicates experience in operating a variety of electronic equipment.

Factor IV, Life-Style Orientation. Assesses the importance of various factors in living one's life.

Factor V, Academic Organization. Assesses the student's organization of class materials and his/her willingness to work hard in school.

Living Arrangements

Factor I, Financial Support. Scores reflect the amount of financial support provided by the family.

Factor II, Household Composition. A high score indicates that the student did not live with his/her family.

Factor III, Tax Exemption. Indicates whether a person was listed as a tax exemption by parents.

Factor IV, Adult Milestone. Scores reflect ages at which the person expects to attain each of a number of adult milestones (e.g., getting first job, finishing school, getting married). Lower scores indicate attainment at younger ages.

Community Integration

Factor I, Group Participation. A high score indicates active participation in group activities or leadership.

Factor II, Social Roles. A high score reflects the student's belief that others see him/her positively.

Factor III, Social Activities. Reflects how often the person engages in various social activities (e.g., dating, talking on phone to friends).

Factor IV Church Participation. Scores reflect the level of church attendance and involvement in church activities.

Table 3 (Continued)

Leisure and Recreation

Factor I, Extracurricular Clubs. Scores reflect the level of involvement in extracurricular clubs.

Factor II, Extracurricular Sports. Scores reflect the amount of involvement in athletic teams.

Education, Training, and Employment

Factor I, Work Experience. A high score indicates that the student has held a job for pay and acquired work experience.

Factor II, Career Expectations. This is primarily associated with plans for, and behavior during, the first year after leaving school. High scores are associated with post-secondary education, while low scores reflect getting a job or becoming a homemaker.

Factor III, Post-Secondary Education. This scale represents the type of post-secondary education being sought. High scores indicate planning for, and enrolling in, a four-year college. Low scores are associated with vocational training. Scores in the middle of the range are associated with youth not seeking post-secondary education.

Factor IV, Awareness of Special Programs. Scores reflect the awareness of, and participation in, special high school programs.

Table 4

Comparisons of Rural and Non-Rural Youth on Independent Living Scales and Standardized Canonical Coefficients (n_c = 1814, n_r = 703)

Scale	M_{City}	M_{Rural}	D	t	Discriminant Functions I	Discriminant Functions II
Computer Skills	49.59	48.48	1.11	2.73**	0.20	0.16
Resource Utilization	49.51	46.99	2.52	5.14***	0.38	-0.04
Technological Skills	48.69	48.26	0.43	0.84	0.09	0.37
Life-Style Orientation	48.27	47.83	0.44	0.82	0.14	0.10
Academic Organization	48.16	47.82	0.34	0.68	0.04	0.09
Group Participation	50.16	49.69	0.47	1.07	0.04	-0.08
Social Roles	49.70	48.74	0.96	1.97*	0.02	-0.26
Social Activities	50.24	49.63	0.61	1.30	0.12	0.02
Church Participation	49.83	50.41	-0.58	1.29	0.07	0.23
Extracurricular Clubs	49.84	50.91	-1.07	-2.39*	0.04	0.51
Extracurricular Sports	49.50	50.35	-0.85	-1.93*	-0.37	-0.02
Financial Support	49.58	48.95	0.65	1.46	0.10	0.05
Household Composition	49.12	50.92	-1.80	-4.58***	-0.14	0.35
Tax Exemption	49.52	50.43	-0.91	-2.57**	-0.13	0.34
Adult Milestones	49.17	46.73	2.40	5.15***	-0.01	-0.13
Work Experience	50.34	52.37	-1.04	-5.22***	-0.13	0.42
Career Expectations	48.62	45.43	3.19	7.09***	0.65	-0.07
Post-Secondary Ed.	49.40	47.89	1.51	3.68***	0.14	-0.20
Special Programs	51.54	50.34	1.20	2.36*	0.10	-0.19

*p<.05. **p<.01. ***p<.001.

U.S. Department of Education (1984). High school and beyond. Washington, DC: National Center on Education Statistics.

Table 5

Class Means for Independent Living Scales by Community Type and Disability Condition

Sample Size	LD (396)	HI (359)	SI (275)	OI (192)	OH (935)	LD (155)	HI (156)	SI (106)	OI (89)	OH (345)
Scale										
Computer Sks.	47.30	48.49	48.17	52.55	50.37	46.17	48.56	47.22	50.65	49.00
Resource Use	46.74	48.99	47.81	52.07	50.39	44.64	45.90	45.62	50.05	47.78
Techno. Sks.	45.91	48.61	45.80	52.20	49.57	46.18	48.66	45.35	51.00	48.88
Life-Style	46.60	45.94	47.94	49.94	49.17	48.52	45.53	45.52	49.33	48.66
Academic Org.	46.73	45.92	47.76	48.46	49.20	47.27	45.46	46.80	50.41	48.51
Group Parti.	48.37	49.48	48.89	51.24	50.95	47.03	51.07	46.83	50.92	50.44
Social Roles	48.33	49.28	50.80	49.76	49.92	46.37	49.88	49.58	49.35	48.73
Social Acts.	50.24	51.33	48.03	50.66	50.58	49.64	50.62	47.29	47.55	50.23
Church Parti.	48.50	48.77	48.79	53.17	50.19	48.64	50.52	50.01	50.65	50.92
Extra Clubs	47.81	49.92	49.07	50.88	50.37	47.51	50.95	48.51	55.06	51.66
Extra Sports	48.89	50.38	50.71	49.31	49.17	49.80	52.96	49.91	49.44	49.92
Financial Support	49.74	48.91	48.94	50.18	49.78	48.10	50.93	48.35	50.32	48.41
Household	48.62	49.54	48.89	49.20	49.17	50.15	51.07	51.07	54.29	50.44
Tax Exempt.	50.02	49.74	48.79	51.81	49.12	49.43	51.43	50.23	52.08	50.12
Milestones	48.12	47.37	48.85	51.10	49.71	44.48	46.70	45.76	49.56	47.09
Work Experience	50.35	51.51	49.54	51.28	50.06	50.95	52.77	52.88	51.45	52.70
Career Expectations	45.37	46.63	47.83	52.10	49.67	42.56	44.89	44.03	51.47	45.63
Post-Secondary Ed.	47.30	48.24	50.18	50.45	49.95	47.47	48.53	46.44	49.76	47.78
Special Programs	51.40	51.39	51.30	52.46	51.52	49.72	49.41	51.86	48.81	50.77

U.S. Department of Education (1984). High school and beyond. Washington, DC: National Center on Education Statistics.

Figure 1. Centroids on two independent living functions for ten disability groups.